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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,440	11/08/2001	Kari Kirjavainen	U 011573-2	8064
7590		09/22/2004	EXAMINER	
Ladas & Parry		HOOK, JAMES F		
26 West 61st Street		ART UNIT		
New York, NY 10023		PAPER NUMBER		
		3752		

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/010,440

Applicant(s)

KIRJAVAINEN ET AL.

Examiner

James F. Hook

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

The amendment filed August 27, 2004 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "continuous electrode layers" is not set forth in the specification as originally filed and it's not clear from the drawings that such applies when the drawings do not show a finished pipe product, therefore, there is no support in the specification for this limitation.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The subject matter added to the specification and claims, as set forth above, with regards to "continuous electrode layers" such is considered new matter when the originally filed specification including the drawings do not set forth support for the electrode layers being continuous.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Nishino (278). The patent to Nishino discloses the recited hollow pipe comprising extruded layers including an inner layer 11 made of plastic adhesive, outside of which is an inner layer 12 made of a plastic that is electrically conductive and considered the equivalent of an electrode layer, outside of which is an insulating layer 13 of plastic adhesive separating the inner electrode layer and an outer electrode layer 14 which can also be made of electrically conductive plastic.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

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matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Schmidt. The patent to Brown discloses an inner layer 12 of plastic, a layer formed of wires 14 are electrically conductive and considered the equivalent of an electrode layer, and an outer layer formed of a plastic 16 with a metal reinforcing layer provided therein which inherently would act as an insulator between the wire layers, where breaking of the wires in layer 14 produces a signal or alarm, here the pipe is considered hollow. The patent to Brown discloses all of the recited structure with the exception of forming at least some of the layers by extrusion and using the second conductive layer 16 in combination with the inner layer to detect breakage. The patent to Schmidt discloses an alarm system comprising an inner layer 2 made of a material, paper, an electrode layer 3 in the form of aluminum foil, a plastic insulation layer 4, an outer aluminum foil layer 5 that can also be considered an electrode layer, where the two foil layers are connected together in such a way as to sound a signal when the sleeve is broken or tampered with, where at least one layer forming the sleeve is made by extrusion. It would have been obvious to one skilled in the art to modify the second metal wire layer in Brown to be an electrode type layer that in combination with the inner electrode layer would sound the alarm if the tube were damaged or tampered with which would provide for a more precise determination that the tube had been breached as suggested by Schmidt, and where it is obvious that plastic layers can be extruded and at least one layer of Brown could be extruded as suggested by Schmidt, as such

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would provide for a better pipe in that the layers could then cool while they are being attached together and eliminate production steps.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Schmidt as applied to claims 1 and 2 above, and further in view of Charboneau. The patent to Brown as modified discloses all of the recited structure with the exception of utilizing the electrode layer to detect strain to sound an alarm. The patent to Charboneau discloses the recited pipe comprising an inner layer 32 of plastic, electrodes 16, 38,46 which can sound an alarm if they are broken or can also detect strain and sound an alarm. It would have been obvious to one skilled in the art to modify the pipe in Brown as modified to use the electrode layer to detect strain to sound the alarm as suggested by Charboneau as such would sound an alarm before the electrode layer is broken.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Schmidt as applied to claims 1 and 2 above, and further in view of Swinbanks. The patent to Brown as modified discloses all of the recited structure with the exception of using the electrode layer to create sound in the tube to cancel noise in the pipe. The patent to Swinbanks discloses the recited cancellation of sound waves in a pipe by generating a wave to cancel the noise sound waves using electrodes 1, 2, 6. It would have been obvious to one skilled in the art to modify the pipe in Brown as modified by providing structure to use the electrode layer to create a sound wave that will cancel out noise waves in the pipe as suggested by Swinbanks to make the pipe quieter.

Claims 5, 6, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt in view of Thomas. The patent to Schmidt discloses all of

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the structure above with the exception of forming the insulating layer of a foamed material which inherently would have holes. It is believed the layers of Schmidt are considered hollow and provided with wires inside for its intended use, and therefore such is considered the hollow. The patent to Thomas discloses that it is old and well known to foam plastic materials in layers of a sleeve if certain properties are desired. It would have been obvious to one skilled in the art to modify the insulation layer in Schmidt to be made of any suitable plastic material including a foamed plastic as suggested by Thomas as such would provide the benefit of having some insulative properties for heat as well as for electricity.

Claims 11, 12, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt in view of Thomas as applied to claims 5, 6, 9, and 10 above, and further in view of Noone (087). The patent to Schmidt discloses all of the recited structure with the exception of forming all the layers by coextrusion and including the conductive layers. The patent to Noone discloses that it is known in the art to form all the layers of a tube by coextrusion, and that the layers can include layers with conductive material and layers without. It would have been obvious to one skilled in the art to modify the conductive layers of Schmidt as modified to all be formed by coextrusion as such is an old and known method of forming tubes as suggested by Noone where forming them by coextrusion would be cheaper and easier to perform without the need for a winding step.

Response to Arguments

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Applicant's arguments filed August 27, 2004 have been fully considered but they are not persuasive. With respect to the arguments directed toward Nishino not teaching an electrode layer, Nishino states in column 9, lines 5-9 that layer 12 is anti static, and it is known in the art that anti static layers are layers provided with conductive materials to dissipate charge, and therefore such is considered the equivalent of a conductive layer. This is not personal knowledge but based on knowledge of what's old and known in the art, see Noone (087) for further background on this subject if needed, or newly cited Sadr which teaches conductivity of electricity by such types of conductive plastics set forth in Nishino. Also, Marcoz sets forth the equivalence of metal strips with conducting the same as conductive plastics which further teaches such layers as taught by Nishino are capable of being an electrode layer. With respect to such a layer not being inherently high or continuous is considered new matter as set forth above. The outer layer is in the same way conductive based on the anti static discussion above. The adhesive layer of Nishino is made of plastic material and inherently plastic material is an insulator when not provided with conductive materials therein, and therefore would inherently be an insulating layer. If applicant knows of a conductive plastic that is not an insulator and also is not provided with additives to make it conductive, then such would be required for the examiner to consider this argument, when it is known that plastics are inherently electrically insulative. With respect to the thickness affecting the layers ability to be an insulating layer, such is not persuasive when any thickness layer would provide electrically insulative properties when such would be a barrier to electric charge flow, and Nishino states on page 5 that the thickness provides uniform coatings for

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connecting the layers so it is considered that the Nishino has a uniform layer as he states and that the hose would delaminate if the layer was not thick enough to connect the adjacent layers completely, therefore it is considered to be a thickness that is uniform and made of a material that is electrically insulative and would meet the claim language when no thickness is specifically claimed in claim 1. The examiner is not using hindsight to acknowledge the fact that it is old and known in the art that conductive plastics form electrically conductive layers in pipes, and that such is the equivalent of applicants electrode layers, see the examiners position above to the teaching of what is old and known in the art. With respect to the reference to Schmidt, such teaches total coverage and such is considered the equivalent of continuous as recited in the amended claims, however, this limitation is also in question under the new matter rejection above. It is believed that the layers in Schmidt are hollow and provided with wires, where the preamble sets forth the term consisting which allows further structure to exist and yet still have the reference meet the claim limitations. With respect to the teachings of Thomas such is merely being used to modify the plastic layer to be foamed, it is not being used to modify any other structure of Schmidt and arguments to that effect are considered not persuasive.

Conclusion

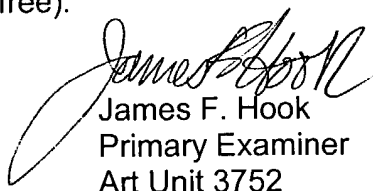
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Marcoz, Nishino (034), Sadr, and Kito disclosing state of the art multilayer conductive hoses.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (703) 308-2913, until mid November at which time it will change to (571) 272-4903, and the art unit designation number will change to 3754 for this examiner on October 1, 2004, so further correspondence should be sent to this examiner at new art unit 3754. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (703) 308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James F. Hook
Primary Examiner
Art Unit 3752

JFH